

WHAT IS CLAIMED IS:

1. A recording apparatus of a helical scan system, comprising:

a first video head which records video signals on a magnetic tape when a running speed of the magnetic tape is a standard speed; and

a second video head which records video signals on the magnetic tape when the running speed of the magnetic tape is approximately $1/N$ of the standard speed, N being an integer larger than 3.

2. The recording apparatus according to claim 1, wherein the value of N is 5.

3. The recording apparatus according to claim 1, wherein the second video head records video signals on the magnetic tape when the running speed of the magnetic tape is approximately $1/3$ of the standard speed.

4. The recording apparatus according to claim 2, wherein the second video head records video signals on the magnetic tape when the running speed of the magnetic tape is approximately $1/3$ of the standard speed.

5. The recording apparatus according to claim 3, wherein the value of N is 6.

6. The recording apparatus according to claim 3,

wherein a head width of the second video head is equal to approximately a track pitch of the video signals recorded on the magnetic tape when the running speed of the magnetic tape is approximately $1/3$ of the standard speed.

7. The recording apparatus according to claim 4, wherein a head width of the second video head is equal to approximately a track pitch of the video signals recorded on the magnetic tape when the running speed of the magnetic tape is approximately $1/3$ of the standard speed.

8. The recording apparatus according to claim 5, wherein a head width of the second video head is equal to approximately a track pitch of the video signals recorded on the magnetic tape when the running speed of the magnetic tape is approximately $1/3$ of the standard speed.

9. A recording apparatus of a helical scan system, comprising:

a switch which switches between a first recording mode in which video signals are recorded on a tape at a standard track pitch, a second recording mode in which video signals are recorded on the tape at a track pitch equal to approximately $1/3$ of the standard track pitch, and a third recording mode in which video signals are recorded on the tape at a track pitch equal to approximately $1/5$ of the standard track pitch.

10. A recording apparatus of a helical scan system,

comprising:

first and second video heads which record video signals on a magnetic tape; and

a controller which controls the first and second video heads so that the first video head records video signals at a standard track pitch, and the second video head records video signals at least one of at a track pitch equal to approximately $1/3$ and $1/5$ of the standard track pitch.

11. The recording apparatus according to claim 10, wherein a head width of the second video head is equal to approximately $1/3$ of the standard track pitch.

12. A recording apparatus of a helical scan system, comprising:

first and second video heads which record video signals on a magnetic tape;

an audio head which records audio signals on a magnetic tape; and

a switch which switches between a first recording mode in which video and audio signals are recorded by the first video head and the audio head at a standard track pitch, a second recording mode in which video and audio signals are recorded by the first video head and the audio head at a track pitch equal to approximately $1/3$ of the standard track pitch, and a third recording mode in which video and audio signals are recorded by the first video head and the audio head at a track pitch equal to approximately $1/5$ of the standard track pitch.

13. A reproducing apparatus of a helical scan system, comprising:

first and second video heads which reproduce video signals from a magnetic tape; and

a switch which switches the first and second video heads so that the first video head reproduces video signals recorded on the magnetic tape at a standard track pitch, and the second video head reproduces video signals recorded on the magnetic tape at a track pitch equal to approximately $1/N$ of the standard track pitch, N being an integer larger than 3.

14. The reproducing apparatus according to claim 13, wherein the value of N is 5.

15. The reproducing apparatus according to claim 13, wherein the second video head reproduces video signals recorded on the magnetic tape at a track pitch equal to approximately $1/3$ of the standard track pitch.

16. The reproducing apparatus according to claim 14, wherein the second video head reproduces video signals recorded on the magnetic tape at a track pitch equal to approximately $1/3$ of the standard track pitch.

17. The reproducing apparatus according to claim 15, wherein the value of N is 6.

18. The reproducing apparatus according to claim 13,

wherein a head width of the second video head is equal to approximately $1/3$ of the standard track pitch.

19. The reproducing apparatus according to claim 14, wherein a head width of the second video head is equal to approximately $1/3$ of the standard track pitch.

20. The reproducing apparatus according to claim 15, wherein a head width of the second video head is equal to approximately $1/3$ of the standard track pitch.

21. The reproducing apparatus according to claim 16, wherein a head width of the second video head is equal to approximately $1/3$ of the standard track pitch.

22. The reproducing apparatus according to claim 17, wherein a head width of the second video head is equal to approximately $1/3$ of the standard track pitch.

23. A reproducing apparatus of a helical scan system, comprising:

a first video head which reproduces video signals recorded on a magnetic tape at a standard track pitch; and

a second video head which reproduces video signals recorded on the magnetic tape at a track pitch equal to approximately $1/5$ of the standard track pitch.

24. The reproducing apparatus according to claim 23,

wherein the second video head reproduces video signals recorded on the magnetic tape at a track pitch equal to approximately $1/3$ of the standard track pitch.

25. The reproducing apparatus according to claim 23, wherein a head width of the second video head is equal to approximately $1/3$ of the standard track pitch.

26. A recording/reproducing apparatus of a helical scan system for recording/reproducing a video signal on/from a magnetic tape, comprising:

a first head which records/reproduces a video signal at a time of a standard play mode in which a running speed of the magnetic tape is a standard speed; and

a second head which records/reproduces a video signal at a time of a 3-ple play mode in which the running speed of the magnetic tape is approximately $1/3$ of the standard speed and at a time of N-ple play mode in which the running speed of the magnetic tape is approximately $1/N$ of the standard speed, N being an integer larger than 3.

27. The recording/reproducing apparatus according to claim 26, wherein the value of N is 5.

28. The recording/reproducing apparatus according to claim 26, wherein the value of N is 6.

29. The recording apparatus according to claim 26,

wherein a head width of the second video head is equal to approximately a track pitch of the video signals recorded on the magnetic tape at the time of 3-ple play mode.

30. The recording apparatus according to claim 27, wherein a head width of the second video head is equal to approximately a track pitch of the video signals recorded on the magnetic tape at the time of 3-ple play mode.

31. The recording apparatus according to claim 28, wherein a head width of the second video head is equal to approximately a track pitch of the video signals recorded on the magnetic tape at the time of 3-ple play mode.